

REMARKS

Claims 1, 5-13 are amended, and new Claims 41-56 are added. Claims 14-34 have been cancelled. Claims 1-13 and 35-56 remain in the application. Claims 35-40 were withdrawn from consideration by the Examiner. Applicant respectfully requests reexamination and reconsideration of the application as amended.

Summary of Amendments to the Specification

Amendments are made to the specification to correct objections made by the Examiner. On Page 1, line 17, "cesium" is replaced with "cerium." On page 22, line 9, "Sodium" is replaced with "Silver" to clarify that the salt silver lactate is contained in and released from the composition described in that portion of the application. On page 26, line 16, "of silver salts" is replaced with "of salts." An extraneous comma is deleted after "invention" on page 26, line 15. In addition, certain amendments were made to correct typographical errors. These include correcting "fomation" to read "formation" at Page 25, line 18, correcting "suiteable" to read "suitable" on Page 26, line 14, and correcting "compsition" to read "composition" on Page 44, lines 15. The language "can altered" is corrected to read "can be altered" on page 44, line 24. None of these changes add new matter to the application.

Objections to the Specification

The Examiner has objected to the specification because on page 11, line 6, and on page 16, line 25, salts of cerium are shown as oligodynamic agents, while on page 1, line 17

cesium is mentioned. The Examiner requests identification of which compound is correct. The specification has been amended on page 1, line 17 to replace the reference to "cesium" with "cerium."

The Examiner has also objected to page 22, line 9 of the specification, which lists sodium lactate as a silver salt. The specification has been amended on page 22, line 9 to replace the reference to "sodium with "silver."

The Examiner has further objected to the specification at page 26, lines 16-21 because Na, Zn, Au, Pd and Pt are listed as silver salts. The specification has been amended on page 26, lines 16 to clarify that not all of the salts listed in the sentence are silver salts.

Summary of Amendments to the Claims

Claims 1 and 5-13 have been amended to clarify that the invention comprises colloids comprising salts of oligodynamic metals or oxides of oligodynamic metals, as well as combinations of salts and oxides of oligodynamic metals. Claim 11 has further been amended to depend from Claim 1 rather than Claim 10. Claims 5 and 9 have been further amended to correct typographical errors. Claims 6 and 7 have been amended to clarify that cellulose is a hydrophilic polymer, not a hydrophobic polymer. Support for this listing cellulose as a hydrophilic polymer may be found on page 15 lines 24-25 of the specification.

Claims 41-56 have been added. Claim 41 describes embodiments in which the coating is on an exposed surface of the article. Claim 42 describes embodiments in which the article will release oligodynamic metal into fluids that come into contact with the exposed

surface of the article. Claims 43-56 are each based on Claims 1-13, 41, and 42. They differ from these claims only in that they include embodiments involving one salt or one oxide of oligodynamic metals.

Support for use of oxides of oligodynamic metals appears in the specification in the reference to oxides in the list of possible anions for Salt B on Page 17, line 12. Since the anion in "Salt B" combines with the oligodynamic metal cation to form the colloids of the present invention, this reference supports the formation of oligodynamic metal oxides. Support for embodiments in which the coating is on an exposed surface of the article may be found, for example, in Example 1 on pages 38 and 39 of the specification, in which the coating is applied to the surface of a catheter. Support for embodiments that include only one salt or oxide is found throughout the specification. For example, the specification's frequent references to the invention as comprising salts of "one or more oligodynamic agents." Examples include page 10, line 21, page 14, lines 12-13, and page 16, lines 20-22. Although the Examiner has stated that salts are not oxides, oxides are identified as salts that may be used in the present invention on, for example, page 17, line 12. Remaining support for Claims 43-56 may be found in original Claims 1-13 and in the bases stated above for the amendments to those claims. Because Claims 14-34 have been canceled, no fees are believed due (aside from the fee for the Petition for Extension of Time for One Month). However, the Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account No. 11-0855.

Rejections under 35 U.S.C. §112, second paragraph.

The Examiner has rejected Claims 7, 9 and 12 as indefinite under 35 U.S.C. §112, second paragraph. With respect to Claim 7, the Office Action states that the claim is rendered indefinite by the word "derivative." The Office Action asserts that CO₂ is a derivative of all of the claimed polymers and is derived through burning.

Applicant respectfully traverses on the grounds that CO₂ is not a derivative within the meaning of Claim 7. Claim 7 describes a **hydrophobic polymer** that is selected from the group comprising the listed polymers and mixtures, derivatives, and copolymers thereof. Thus, derivatives described by Claim 7 are also hydrophobic polymers. CO₂ is not a hydrophobic polymer. Accordingly, applicant respectfully requests withdrawal of this rejection.

Claim 9 is rejected as being indefinite on the grounds that silver oxide is identified as a silver salt, and oxides are not salts. As discussed above, Claims 1 and 5-13, have been revised to include "salts, oxides, or a combinations of salts and oxides of oligodynamic metals," "oligodynamic metal salts, oligodynamic oxides or combinations thereof," or similar language clarifying that oxides of colloids comprising oligodynamic metals are within the present invention. Accordingly, this rejection is believed overcome.

The Office Action states that Claim 12 contains improper *Markush* language. Applicant respectfully traverses on the ground the Claim 12 is not intended to be a *Markush* claim, or to be interpreted as such. Claim 12 describes an embodiment in which the colloid comprises **all** of the listed salts. Support for this embodiment is found in the specification at Page 21, lines 22-23. Accordingly, applicant respectfully requests withdrawal of this rejection.

Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-3, 5, 6, 8 and 9 as obvious under 35 U.S.C. §103(a) in view of U.S. Patent No. 5,357,636 to Dresdner, Jr. *et al.* According to the Office Action, *Dresdner* discloses a glove in Claim 1 and colloidal silver iodide in gelatin in Claim 5. The Office Action asserts that since the gelatin is between two layers in the glove, it coats the inside of both surfaces. The Office Action concludes that it would have been obvious to select silver iodide in gelatin from a list of equivalents.

The rejection is respectfully traversed on the grounds that *Dresdner* does not teach or suggest the claimed invention. Claim 1 describes a colloid that comprises **more than one salt**. Prior to amendment, Claim 1 describes a colloid that “comprises saltsu of one or more oligodynamic metals.” As amended, Claim 1 describes oligodynamic metal compounds that comprise “a **plurality** of metal salts, a **plurality** of metal oxides, or a **combination** of at least one metal salt and at least one metal oxide.” *Dresdner* does not teach or suggest use of a colloid of more than one salt. *Dresdner* provides a lengthy list of several hundred possible antiseptics (col. 27 line 39 through col. 29, line 41). Although the list indicates that “mixtures” of listed antiseptics may also be used, colloidal silver iodide in gelatin is the only colloidal salt in this list. The only other mention of possible use of metal colloids in *Dresdner* is a reference to use of “mineral colloids” as surface active agents in col. 32, line 42. Thus, *Dresdner* does **not** teach use of colloids that comprise more than one salt. Further, the general statement in *Dresdner* that

mixtures of antiseptics can be used does not provide any suggestion to select multiple salts or oxides of oligodynamic metals.

Patentability of Newly Submitted Claims

New Claims 43-56 recite articles in which the colloid comprises a single salt or oxide of oligodynamic metals. Rejection of these claims based on *Dresdner* would be improper on the grounds that the glove disclosed in *Dresdner* does not involve a coating of an article. Rather, the gel is one of a multiple layers of an article. The fact that the gel is sandwiched between the two layers does not render the gel a "coating." Otherwise, every layer in a multilayer article each would be a "coating" of adjacent layers. Accordingly, the rejection should not apply to any of the new claims. New Claims 41 and 44 recite that the coating is on an exposed surface of the article. *Dresdner* does not disclose an article in which the coating is on an exposed surface of the article but instead discloses a layer of materials between two layers of a glove. New Claims 42 and 45 recite coatings that release oligodynamic metals into aqueous fluids that come into contact with an exposed surface of the article. The surgical gloves disclosed in *Dresdner* require puncture of the surface of the glove for release to occur. Accordingly, *Dresdner* does not teach or suggest the inventions of any of the new claims.

Applicants respectfully submit that the foregoing is a complete response to the Office Action dated July 9, 2001, and that all pending claims are patentable in light of the above remarks.

For at least the reasons set forth above, the present application is believed to be in condition for allowance. Early and favorable consideration is earnestly solicited. The Examiner

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is invited and encouraged to contact the undersigned attorney or record at (404) 815-6500 if such contact will facilitate an efficient examination of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mary A. Merchant', with a stylized flourish at the end.

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